WHAT IS CLAIMED IS:

1. A dextrose hydrate in powder form, having:

- a dextrose content at least equal to 98%,

- an α crystalline form content at least equal to 95%,

- a water content greater than 1%,

- a compressibility determined according to a test A at least equal to 70 N.

2. A dextrose hydrate according to claim 1, having a water content in the range 2% to 10%.

3. A dextrose hydrate according to claim 2, having a water content in the range 5% to 9.5%

4. A dextrose hydrate according to claim 1, having a compressibility of at least 90 N.

5. A dextrose hydrate according to claim 4, having a compressibility in the range 90 N to 200 N.

6. A dextrose hydrate in powder form according to claim 1, having a compressibility determined according to a test A in the range 150 N to 200 N and according to a test B at least equal to 170 N.

7. A dextrose hydrate according to claim 6, having a compressibility determined according to a test B in the range 175 N to 300 N.

8. A dextrose hydrate in powder form according to claim 1, having:

- an apparent density, determined according to HOSOKAWA, of less than 0.7 g/ml,

- a mean diameter in the range 50 μm to 1000 μm,

- a flow grade at least equal to 60.

9. A dextrose hydrate according to claim 8, having an apparent density in the range 0.45 g/ml to 0.65 g/ml.

10. A dextrose hydrate according to claim 9, having an apparent density in the range 0.5 g/ml to 0.6 g/ml.

11. A dextrose hydrate according to claim 8, having a mean diameter in the range 100 µm to 500 µm.

12. A dextrose hydrate according to claim 8, having a flow grade in the range 60 to 90.

13. A process for the preparation of a dextrose hydrate in powder form according to claim 1, wherein it comprises a succession of steps consisting in a step involving the rehumidification/granulation, using a suitable binder, of a crystalline dextrose of substantially α form obtained directly by crystallisation or by partial or complete drying of a crystalline dextrose monohydrate, then a step involving the ageing/drying of the rehumidified granulated dextrose thus obtained.

14. A process for the preparation of a dextrose hydrate in powder form according to claim 1, wherein it comprises a step involving the granulation of an α crystalline dextrose having a water content greater than 1%.

15. A process for the preparation of a dextrose hydrate in powder form according to claim 14, wherein the α crystalline dextrose has a water content in the range of 2% to 10%.

16. A process for the preparation of a dextrose hydrate in powder form according to claim 6, wherein it comprises a step involving the granulation of an α crystalline dextrose having a water content at most equal to 1%.

17. A process for preparation according to claim 13, wherein the granulation step is carried out in a continuous mixer-granulator.

18. A dextrose in powder form, having:

- a dextrose content at least equal to 98%,
- an α crystalline form content at least equal to 95%,
- a compressibility, determined according to a test A, in the range 180 N to 200 N, and according to a test B greater than 220 N.

19. A dextrose in powder form according to claim 18, having a compressibility determined according to a test B, greater than 230 N.

20. The use of a dextrose hydrate in powder form according claim 1, as a sweetener, osmotic agent, nutrient or excipient in compositions intended in particular for the food, pharmaceutical, chemical or agrochemical sectors.

21. The use of a dextrose hydrate in powder form obtained according claim 13, as a sweetener, osmotic agent, nutrient or excipient in compositions intended in particular for the food, pharmaceutical, chemical or agrochemical sectors.